UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,117	05/10/2007	Ernst-Werner Wagner	1-39509	9843

43935 7590 01/05/2012

FRASER CLEMENS MARTIN & MILLER LLC
28366 KENSINGTON LANE
PERRYSBURG, OH 43551

EXAMINER	
CERNOCH, STEVEN MICHAEL	
ART UNIT	PAPER NUMBER
3752	

NOTIFICATION DATE	DELIVERY MODE
01/05/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

sloan@fraser-ip.com
clemens@fraser-ip.com
lopez@fraser-ip.com

Office Action Summary	Application No.	Applicant(s)	
	10/584,117	WAGNER, ERNST-WERNER	
	Examiner	Art Unit	
	STEVEN M. CERNOCH	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 October 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

5)☒ Claim(s) *24-43* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *24-43* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *10 May 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

12)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/11/2010 has been entered.

Claim Rejections - 35 USC § 103

Claims 24-29, 31-41 and 43 rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) in view of Mitchell et al. (US Pat No 6,095,251).

Re claim 24, Wagner et al. shows an inerting method for extinguishing a fire in a closed room (paragraph 0002) in which the oxygen content in the closed room is reduced within a given time (0013) to a specific inerting level, wherein said inerting level is kept to a certain level within a given regulation range (0004), said inerting level corresponds to said re-ignition prevention level (paragraph 0004); an upper end of said regulation range limited by an upper threshold of oxygen content and a lower end of said regulation range limited by a lower threshold of oxygen content (0004), said upper threshold of oxygen content in the regulation range is smaller than or, at maximum, equal to the re-ignition prevention level (paragraph 0004); or the time for lowering the oxygen content to the inerting level is contingent on an oxygen content in the closed

room at the time the flooding begins for lowering the oxygen content to said inerting level (0024).

Wagner et al. does not teach the time for lowering the oxygen content to said inerting level is preset.

However, Mitchell et al. does teach the time for lowering the oxygen content to said inerting level is preset (col. 2, lines 42-44).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Re claim 25, Wagner et al. shows wherein the amplitude of the oxygen content in the regulation range has a height of approximately 0.2% by volume (paragraph 0004).

Re claim 26, Wagner et al. shows wherein the regulating of said oxygen content for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level is performed by taking into account said air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 27, Wagner et al. shows wherein the regulating of said oxygen content for lowering said oxygen content to the inerting level and/or for keeping said oxygen content at the re-ignition prevention level is performed by taking into account said air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 28, Wagner et al. shows wherein a calculating of the amount of extinguishing agent for lowering said oxygen content to said inerting level and/or for keeping said oxygen content at said re-ignition prevention level is performed by taking into account an air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 29, Wagner et al. shows wherein a calculating of the amount of extinguishing agent for lowering said oxygen content to said inerting level and/or for keeping said oxygen content at said re-ignition prevention level is performed by taking into account an air exchange rate of the target area and/or the pressure difference between the target area and the environment (paragraph 0005).

Re claim 31, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas takes into consideration the air/gas pressure in the target area (paragraph 0005).

Re claim 32, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas takes into consideration the air/gas pressure in the target area (paragraph 0005).

Re claim 33, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas for lowering the oxygen content to said inerting

level and/or for maintaining said oxygen content is performed by taking into account the base inertization level at the time the flooding begins (paragraph 0004).

Re claim 34, Wagner et al. shows in which lowering the oxygen content ensues by means of feeding an oxygen-displacing gas into the target area, wherein a regulating of the supply of oxygen-displacing gas is performed by taking into account either said current oxygen content or the current oxygen-displacing gas concentration, in the target area (paragraph 0013).

Re claim 35, Wagner et al. shows the regulating of a supply of oxygen-displacing gas is performed by taking into account said oxygen content prior to beginning the lowering of said oxygen content to the specific inerting level (paragraph 0013).

Re claim 36, Wagner et al. shows the regulating of the supply of oxygen-displacing gas is performed according to a specific flooding progress pattern (paragraph 0013).

Re claim 37, Wagner et al. shows the oxygen content in the target area is lowered by introduction of an oxygen-displacing gas from a reservoir (paragraph 0013).

Re claim 38, Wagner et al. shows in which the oxygen-displacing gas is made available by means of a production system (paragraph 0013).

Re claim 39, Wagner et al. shows wherein the oxygen-displacing gas for lowering the oxygen content to the specific inerting level is provided from a reservoir and the oxygen-displacing gas to keep the inerting level at the re-ignition prevention level is provided from a production system (paragraph 0013).

Re claim 40, Wagner et al. shows wherein the re-ignition prevention level is determined dependent on the characteristic fire load of the target area (paragraph 0005), especially dependent on the material present within said target area (0004).

Re claim 41, Wagner et al. shows the re-ignition prevention level (R) is determined dependent on any given equipment and/or machines accommodated within the target area and their operating states (paragraph 0024).

Re claim 43, Wagner et al. teaches lowering the oxygen content but does not teach that lowering the oxygen content begins at Time t0 of an early fire detection.

However, Mitchell et al. does teach that lowering the oxygen content begins at Time t0 of an early fire detection (col. 2, lines 40-42).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the predetermined time of Mitchell et al. in order to prevent re-ignition (col. 2, lines 31-32).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) in view of Mitchell et al. (US Pat No 6,095,251) as applied to claims 24-29, 31-41 and 43 above, and further in view of Saum et al. (US Pat No 5,128,881)

Re claim 30, Wagner et al. does not specify wherein the air exchange rate of the target area corresponds to an n_{50} value of the target area.

However, Saum et al. discloses a blower door for a total flooding fire extinguishing system. A blower door being the commercially available and known diagnostic tool used to measure the n_{50} value.

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the blower door of Saum et al. as blower door's are known in the art and a commercially available diagnostic tool.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wagner et al. (US Pub No 2002/0040940) in view of Mitchell et al. (US Pat No 6,095,251) as applied to claims 24-29, 31-41 and 43 above, and further in view of Ford et al. (US Pat No 6,029,751)

Re claim 42, Wagner et al. teaches lowering the oxygen content is lowered depending on the equipment present in the target area but does not teach that the equipment is brought into a pre-defined operational state prior to lowering said oxygen content.

However, Ford et al. does teach that the equipment is brought into a pre-defined operational state prior to lowering said oxygen content (col. 5, lines 23-25).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the motivation to modify the apparatus of Wagner et al. with the pre-defined operational state of the equipment of Ford et al. shut it down (col. 5, lines 19-28).

Response to Arguments

Applicant's arguments filed 9/10/2010 have been fully considered but they are not persuasive. Regarding applicant's arguments, Mitchell specifically states "Therefore the inerting agent must be able to *extinguish* the fire and keep it out for a predetermined

time," emphasis added. Therefore applicant's argument that Mitchell is silent with respect to the time within which the oxygen content in the enclosed room must be reduced to the inerting level in order to extinguish the fire is erroneous. Further, as per applicant's newly amended language, Wagner specifically teaches in paragraph 0024 that the oxygen content in the space being monitored is constantly measured before and simultaneously with the reduction to the base inerting level and therefore the controller of Wagner will know specifically how much inerting agent is required to flood and how long that will take. The examiner will maintain all rejections.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEVEN M. CERNOCH whose telephone number is (571)270-3540. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. M. C./
Examiner, Art Unit 3752
12/29/2011
/Len Tran/
Supervisory Patent Examiner, Art Unit 3752